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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/805,193

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Michael Dornhausen

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EXAMINER

COOLMAN, VAUGHN

ART UNIT

PAPER NUMBER

3618

DATE MAILED: 11/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/805,193

Applicant(s)

DORNHAUSEN, MICHAEL

Examiner

Vaughn T. Coolman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 08/17/2006 has been entered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 16-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 16 recites the limitation "the environmental conditions" in line 3. There is insufficient antecedent basis for this limitation in the claim. Examiner respectfully suggests "at least one environmental condition".

Claim 28 recites the limitation "the environmental conditions" in line 3. There is insufficient antecedent basis for this limitation in the claim. Examiner respectfully suggests "at least one environmental condition".

Claims 17-27 have been rejected as depending from a rejected base claim.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 16, 17, 21-24, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shuman.

[claims 16 and 28] Shuman discloses a method and an arrangement of limiting the speed (Column 29, line 65) of a vehicle, the method comprising the steps of:

determining, and means for determining, the environmental conditions (Column 30, lines 38-39; column 22, lines 35-40) of said vehicle;

determining, and means for determining, a maximum permissible speed (Column 30, lines 30-34) in dependence upon the determined environmental conditions (Column 19, lines 28-35); and,

limiting, and means for limiting, the speed of said vehicle to said maximum permissible speed when the following conditions are satisfied:

(a) said determined environmental conditions have been present uninterruptedly for a pregiven time duration; and,

(b) the instantaneous speed of said vehicle exceeds said maximum permissible speed (Column 22, lines 45-51; column 30, lines 46-61)

Examiner notes that Shuman discusses calculating a data model of the vehicle environment based on environmental conditions that “precisely describes the vehicle, the past, the present, and predicted future environment around the vehicle” and that the data model includes road conditions. It would have been obvious to one of ordinary skill on the art at the

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time the invention was made to base critical vehicle control decisions on conditions that have been present uninterruptedly for a pregiven time duration such that the present and predicted future vehicle environment is accurately represented. It would have been obvious and common sense that the instantaneous light conditions while driving under an overpass or the instantaneous precipitation sensed while driving under a misdirected lawn sprinkler are not indicative of the predicted future vehicle environment. As such, the limiting of the speed of the vehicle would *only* occur when such environmental conditions have been present for a pregiven time duration and when the instantaneous speed exceeds the maximum permissible speed. There obviously would be no need to limit the speed of the vehicle if it is not exceeding the calculated safe speed for the present vehicle environment.

[claim 17] Shuman also discloses the further step of determining the environmental conditions in dependence upon at least one of the following: rain intensity (Column 18, lines 50-51), humidity (Column 18, line 48), ambient temperature (Column, lines 46-47), ambient pressure (Column 18, line 42), and ambient brightness (Column 18, line 45).

[claims 21 and 22] Shuman further discloses her method having the step of the driver entering preferences, which obviously may be used for customizing operation of vehicle applications. This ability is taken to be the further step of disabling said limiting when at least one of the environmental conditions passes a pregiven threshold. The environmental conditions are taken to be any one of those described above, and the pregiven values are taken to be those entered by the driver of Shuman when setting his preferences. For example, the driver may enter a preference that is the equivalent of ignoring poor road traction as long as visibility is above a certain level.

[claim 23] Shuman also includes the further step of disabling the limiting (Column 22, lines 45-55) when a switch-off condition is present (Column 24, lines 4-7).

[claim 24] Shuman's method is also inherently capable of programming and determining the switch-off condition being present when at least one of the following occurs: the wheel slip of said vehicle, as monitored by the traction control sensor (FIG 4, item 204-9), dropping below a fifth pregiven value, set by the driver as described above; the instantaneous speed, as monitored by the speedometer (FIG 4, item 204-2), of the vehicle dropping below a sixth pregiven value, set by the driver as described above. These values are communicated to the modeling program and vehicle operations, wherein the speed limiter (FIG 6, item 224-1) resides, and the speed limiting can be discontinued or not, depending on the driver or standard preferences.

Claims 18, 19, 25, 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shuman in view of Artis.

[claims 18 and 19] Shuman also discloses the further step of disabling the speed limiting when an operator-controlled element is actuated (Column 17, lines 18-21). The driver interface (see FIG 10, item 250) of Shuman indicates whether the driver has turned on or off the speed limiting. The input to the driver interface is provided by at least one of the following operator-controlled elements: brake pedal input (251-1), clutch pedal input (251-3), accelerator pedal input (251-7), and cruise control switch input (251-9). Shuman is silent as to which operator-controlled element is actuated to disable [turn off], the speed limiting [cruise control].

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Furthermore, she does not disclose the element being actuated beyond a pregiven threshold angle.

Artis teaches the use of an operator-controlled element, an accelerator pedal (FIG 2, item 3), to override or disable the limiting of vehicle speed (Column 3, lines 56-61), when the accelerator pedal is actuated beyond a pregiven threshold angle (FIG 2, items 22, 23, 24). The threshold angle is formed by the pedal arm contact points of stops 23 and 24, with the vertex of the angle being the center of the rotational pin 22. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method shown by Shuman, with the accelerator pedal configured to disable the speed limiter as taught by Artis, since such a modification would, according to Artis, allow a user to perform maneuvers or requiring speeds greater than the limit in the event of an emergency (Column 4, lines 12-14).

[claims 25 and 26] Shuman's method further includes a traction control application that monitors and controls information from the data model (FIG 5, item 213) relating to vehicle speed, engine speed, road conditions, environmental conditions, and driver commands to provide outputs to the operations applications, including the speed limiter (FIG 6, item 224-1) for the torque to be applied to each wheel, the actuation of the vehicle's mechanical systems (FIG 7, items 208) being controlled by the critical vehicle control program (FIGS 6, 7; item 230). Shuman's method is obviously capable of limiting driver command torque in order to limit vehicle speed. Shuman also fails to disclose the limiting of speed being realized by limiting a degree of actuation of an operator-controlled element. However, Artis discloses an operator-controlled element, an accelerator pedal, for a vehicle, wherein the limiting of vehicle speed is realized by limiting a degree of actuation of the accelerator pedal (Column 4, lines 9-12). The

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device of Artis includes two travel parts, the first travel part (FIG 1, item 311) being responsible for limiting the speed of the vehicle. The limit of the degree of actuation occurs in FIG 1 at boundary 310. The driver can appreciably sense the limit due to the appreciably stronger effort; therefore the speed is limited by limiting a degree of actuation of the accelerator pedal.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shuman in view of Artis and further in view of Schmitz et al (U.S. Patent No. 6,789,009).

[claim 20] Shuman in view of Artis discloses all of the elements of the claimed invention as described above except for the speed limiting being disabled when the actuation has been present for at least a first pregiven time. Schmitz teaches vehicle speed limiting being disabled when actuation of an accelerator (gas) pedal has been present for at least a first pregiven time (Column 4, lines 51-54). The term ' ds/dt ' defines a change in position over a change in time for the gas pedal, which for the accelerator pedal of Artis is an angular position. For a change in time to be defined for the calculation to occur, it is obvious that there is at least a first pregiven time. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method shown by Shuman as modified by Artis, with the determination of position versus time as taught by Schmitz, since such a modification would provide the advantage of not disabling the speed limiting system with an inadvertent depression of the accelerator pedal.

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shuman in view of Bellinger.

[claim 27] Shuman fails to disclose the further step of carrying out an increase of the speed of said vehicle above the maximum permissible speed in the form of a ramp function or iteratively in a pregiven step width. However, Bellinger teaches the use of a step function (see FIG 2 and column 8, lines 12-25) for increasing vehicle speed, i.e. acceleration, above a threshold vehicle speed corresponding to an operator input utilizing an accelerator pedal (Column 2, lines 60-67). His means for doing such are data tables defining acceleration curves stored in memory accessible by the vehicle control system (Column 8, lines 26-39). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method shown by Shuman as modified by Artis, with the mathematical functions for increasing vehicle speed as taught by Bellinger, since such a modification would, according to Bellinger, provide the advantage of realizing lower fuel consumption and longer drive train component life (Column 1, lines 43-49).

Response to Arguments

Applicant's arguments filed 08/17/2006 have been fully considered but they are not persuasive.

In response to applicant's argument that Shuman is concerned only with "street data from a map data base *as well as weather and visibility conditions* from monitoring of external conditions" in order to negotiate a curve, examiner notes that if an input of the external conditions and a curve parameter into the speed controller can produce a maximum permissible speed for the curve, then it could accomplish the same calculation much easier without the curve parameter input. Shuman describes a similar calculation when describing the adaptive cruise

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control system. Maximum permissible speed is calculated in view of the road surface condition parameter, which is calculated based upon inputs from the external condition monitors, and communicated with the adaptive cruise control and the critical vehicle control program, both of which programs limit the speed of the vehicle based on both the external conditions and the instantaneous speed of the vehicle.

Regarding the pregiven time duration, examiner's position is clear from the description in re claim 1.

Conclusion

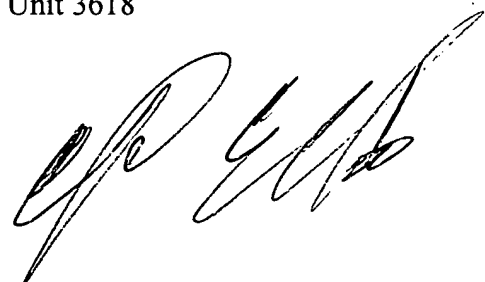
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vaughn T. Coolman whose telephone number is (571) 272-6014. The examiner can normally be reached on Monday thru Friday, 8am-6pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Ellis can be reached on (571) 272-6914. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


vtc
10/27/06

Travis Coolman
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